

## Soboba Community Energy Solar Project – Phase 1



### **Soboba Band of Luiseño Indians**

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## Table of Contents

Executive Summary	3
Project Overview	4
Objectives	4
Description of Activities Performed	5
Conclusions & Recommendations	8
Lessons Learned	8

## Executive Summary

Since time immemorial the descendants of the Soboba people are those whom have lived on and occupied the land that is presently known as the cities of San Jacinto, Hemet, Valle Vista and Winchester.

On June 19, 1883, President Chester Arthur by Executive Order established the Soboba Indian Reservation, a 3,172-acre tract which included the Soboba village and the adjacent hills. The President had limited authority as he was only able to set aside public land for the establishment of a reservation and had no authority to take private land. Thus the Soboba village; cultivated lands and major springs were part of Rancho San Jacinto Viejo and belonged to Matthew Byrne.

Today the Soboba Indian Reservation lies in the lower reaches of the San Jacinto Mountains, across the San Jacinto River from the city of San Jacinto. The Soboba Band of Luiseño Indians was awarded a community solar grant through the U.S. Department of Energy. The incorporated cities of San Jacinto and Hemet, and the unincorporated community of Valle Vista border the Reservation. All three of these surrounding communities have experienced tremendous population growth over the past two decades, with slower growth during the recent economic downturn.

The Tribal community that benefits from under this grant includes 1,161 enrolled members, the majority of which live on the reservation. Nearly 41% of the enrolled members are youth, age 18 and under. The elders and community leaders value preserving and maintaining the Luiseño and Cahuilla cultures and Tribal structure for future generations. The proposed project was administered from the Tribal Administration offices located on the reservation.

The Soboba Tribal Government consists of five Tribal Members who are elected by the general membership to Tribal Council for a staggered two year term. The Chairman/Chairwoman is elected by a majority vote of the general membership but the positions for Vice-Chair, Tribal Secretary, Tribal Treasurer and Sergeant at Arms are decided by the elected council.

The Soboba Tribal Administration encompasses several departments that serve the needs of the Tribe, the Reservation and the general public. They assist in day-to-day Tribal operations, public safety, Tribal family services, Native American assistance to needy families, cultural preservation, and Tribal environmental protection of natural resources, along with the monitoring of progress and needs of its Enterprises and the general public.

The Tribe's long term energy vision is to become self-sufficient and thereby attain greater control of its destiny, to control costs in view of rapidly rising electric utility expenses, and to maximize the use of renewable energy consistent with sustainable development practices.

The project is a Renewable Energy System, specifically a ground mounted, fixed tilt, solar photovoltaic (PV) generating system with a rated capacity of 1.0MWac. The solar generated power serves the electric needs of the affected meters.

It benefits every Tribal member since the cost of running the community Tribal facilities, including electric bills, comes out of the General Fund. The estimated 20 year project savings of \$ 6,418,064 can be re-directed to other vital community needs, and the project will provide additional jobs for Tribal members. The project has been thoroughly researched and is ready to implement as soon as funding is approved.

## **Project Overview**

The Soboba Band of Luiseño Indians desired to investigate the possibility of implementing a Long Term Energy Vision as well as to reduce its rapidly rising utility costs. The long term energy vision encompasses three objectives:

1. Tribal self-sufficiency to attain greater control of its destiny vs. a state of dependency.
2. Cost control in view of rapidly rising electric expense which drain tribal resources. These dramatic increases threaten the Tribe's ability to meet its other obligations.
3. Environmental sensitivity and the use of renewable energy consistent with sustainable development practices.

The Tribal Council engaged the Optimum Group to perform a comprehensive evaluation of the opportunities and challenges of solar generation. The Optimum Group utilized valuable previous studies to conduct a comprehensive evaluation that included the recommendation to construct a 1.0MWac solar generating facility.

The solar PV system is a 1.0 MWac ground mounted fixed tilt system. Its generation output is transmitted to and interconnected with Southern California Edison's 12kV distribution line, which runs adjacent to the site, in accordance with its Interconnection criteria, and credited at full retail value as a generation credit in accordance with Southern California Edison's Virtual Net Energy Metering program (VNEM). Under VNEM, the meters of Planning Areas A, B and D each receive a credit based on its share of the PV system's total generation to apply towards its electric utility bill. The total allocated generation of 1.0 MWac for the project falls with the maximum allowed Southern California Edison VNEM limit of 1.0 MWac and satisfies about 80% of the total annual load of all the meters in the three planning areas, which exceeds EERE energy saving targets.

## **Objectives**

The objectives that were identified in the studies conducted by Optimum Group were prioritized. The recommendation to construct a 1.0MWac facility was selected as a project of the Tribe. Initial land studies and NEPA compliance studies were conducted to ensure that environmental integrity was maintained prior to and throughout the project.

In 2015, the Tribe applied for and was awarded a grant through the U.S. Department of Energy Office of Indian Energy Tribal Energy Deployment Program. This grant awarded \$1,000,000 to assist in the development of the facility.

The Soboba Community Solar Energy Project of a 1.0-megawatt (MW) AC ground-mounted photovoltaic (PV) system that generates approximately 1,884,686 kilowatt-hours (kWh)/year, meeting 80% of the annual energy needs of key community facilities. The estimated 20-year project savings of \$6,418,064 can be redirected to other vital community needs, and the project will provide additional jobs for tribal members.

The following meters/buildings are now able to receive the solar generation from the project:

- Planning Area A: Noli High School, Ball Field #1 and #2, Sports Complex, Drinking Water Pump Stations #1, #3, and #4, and Irrigation Pump Station #1
- Planning Area B: Tribal Administration Building, Pre-School, Tribal Hall, and Public Works Facilities
- Planning Area D: Oaks Sports Complex (multiple meters) and Well Water Pump S.W. #1.

The current grand total for the annual usage for the three planning areas (above) is 2,335,060 kWh/year. To ensure the system is sized properly, the project team calculated 80% of this amount, or 1,868,023 kWh/year, as the target load to replace with solar energy.

## **Description of Activities Performed**

- Negotiations with the Department of Energy were conducted and the contract award was approved in September of 2015.
- Selection of a contractor was conducted in the first quarter of FY 2015/2016. Soon after, EPC Contract approval was provided by the Department of Energy.
- A groundbreaking ceremony was held on January 11, 2016 and construction began on January 27, 2016.
- The interconnection agreement with Southern California Edison was signed on February 2, 2016.
- By March 27, 2016 75% of the construction was completed. Construction was 100% complete as of June 30, 2016.
- The Tribe held a ribbon cutting ceremony on July 25, 2016 with Department of Energy officials in attendance.
- Permission to Operate was finally provided by Southern California Edison on August 17, 2016.







## Conclusions & Recommendations

The construction process flowed in a manner that allowed us to complete the project and bring it online in a relatively short time period. Regular contact with the Department of Energy program staff and contractors facilitated this process.

Initially, the Tribe had considered the possibility of using the Investment Tax Credit incentive program. Ultimately, it was decided that the appeal of the ITC was less favorable to investors because of the vested interest in the property maintained by the Department of Energy until completion of the grant process.

## Lessons Learned

Many valuable lessons were learned by the Tribe during the entire process (grant writing, preconstruction, and negotiations). Although an Environmental Assessment is not required, the Tribe opted to complete a Phase 1 study regardless. This proved to be beneficial during the NEPA compliance negotiations with the Department of Energy.

Secondly, the Interconnection Agreement process with Southern California Edison proved to be a lengthy, drawn out process. It is extremely complex and time for negotiations should be accounted for and started early in the process. Additionally, there was a great deal of delay and push back from Southern California Edison. While we have found this to be a common stumbling block as it pertains to utility providers, we found that using our elected Tribal Council members to assist with contacts, including the Public Utilities Commission, helped spur the process along.

The decision to pursue clean energy sources on the Reservation proved to be extremely beneficial. Grant opportunities from the Department of Energy also provided greater financial leverage for the Tribe to complete the project with a greater impact. The Tribe has already begun reaping the financial benefits of this solar project through savings on energy costs.